



WORLD HEALTH ORGANIZATION PUBLICATIONS

*Announcing a stimulating new textbook for
introductory courses in epidemiology*

Basic Epidemiology

by R. Beaglehole, R. Bonita, and T. Kjellström

This text provides a basic introduction to the principles, methods, and applications of epidemiology in medicine and public health. Intended for use in a formal training course, the book aims to prepare students for an approach to health care that is increasingly concerned with preventive medicine and the most efficient use of resources. To this end, the authors use numerous examples from the scientific literature to show how the tools of epidemiology can be applied to the prevention of disease, the promotion of health, and the formulation of rational policies. Particular attention is given to the use of epidemiological research to detect associations between modifiable environmental factors and specific diseases. By illustrating some of the discipline's past achievements, the book also aims to stimulate appreciation for the wide-ranging contribution that epidemiology can make to health care and public health policy.

The book has eleven chapters. The first two chapters describe the history and scope of epidemiology, highlight some of its major triumphs, and discuss various approaches to the measurement of disease. The third chapter, devoted to the different types of epidemiological study, describes the applications, advantages, and limitations of the major types of observational and experimental studies, emphasizing the many possibilities for errors in epidemiological measurement. Chapter four gives a brief account of some basic statistical concepts and techniques. Chapters five and six describe the epidemiological approach to causation and explain when and how epidemiology can be used in preventive medicine, including the design of screening programmes. A chapter on

communicable disease epidemiological describes the detailed and systematic epidemiological work needed to investigate an epidemic, identify its cause, and determine the best means to control it.

Other chapters explain the application of epidemiological principles and methods to the practice of clinical medicine, and discuss the special features of environmental and occupa-

tional epidemiology, including techniques for risk assessment and risk management, and methods for determining dose-effect and dose-response relationships. Of particular practical value is a chapter on health services and health policy, which shows how epidemiology can be used to support policy choices based on a reasonable knowledge of the likely outcomes and costs. The concluding chapter offers advice on how to read the medical and health literature critically, so as to be able to make independent judgements of the reliability of epidemiological data.

Each chapter concludes with a series of study questions designed to get students thinking in an exploratory way. Answers to the study questions are annexed to the text. The book is complemented by a "Teacher's Guide", which offers advice on the organization of the

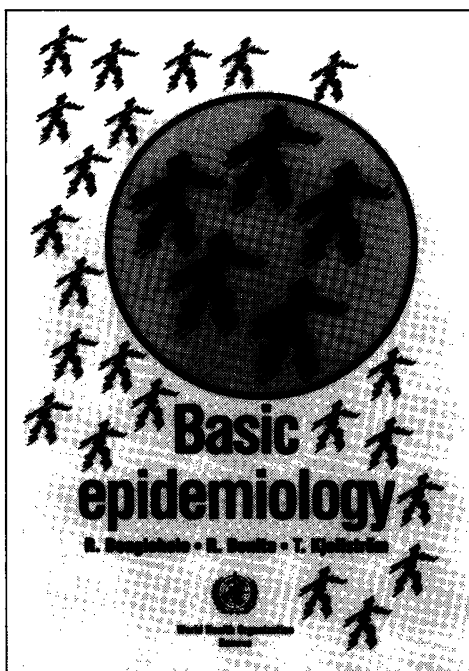
course and provides illustrations suitable for overhead projection.

Basic Epidemiology

1993, viii + 174 pages (available in English; French and Spanish in preparation)

ISBN 92 4 154446 5; Order no. 1150395

Sw.fr. 18.-/US \$16.20; in developing countries: Sw.fr. 12.60





WORLD HEALTH ORGANIZATION PUBLICATIONS

Rehabilitation after Cardiovascular Diseases, with Special Emphasis on Developing Countries

Report of a WHO Expert Committee

This book sets out guidelines for the design and implementation of rehabilitation programmes aimed at improving the outcome of cardiovascular diseases and enhancing the patient's quality of life. Citing evidence from over 100 studies, the book underscores the many benefits that can be expected when all patients in all age groups are given appropriate care and counselling. Emphasis is placed on the importance of exercise as both a powerful non-invasive assessment tool and a key component of rehabilitative care.

In formulating guidelines and recommendations, the book gives particular attention to the needs of patients in developing countries, where rheumatic heart disease, hypertension, and cardiomyopathy are prevalent, and coronary heart disease is assuming growing significance. With these needs in mind, the book concentrates on the design of state-of-the-art rehabilitation programmes, tailored to diagnostic categories, that can be implemented even when resources are scarce and trained staff limited. Throughout the book, practical recommendations concerning methods of functional assessment, schedules of exercise, and staff and equipment requirements are given for three different levels of care, moving from a basic facility within the community, through hospital facilities, to an advanced cardiovascular rehabilitation centre linked to a major medical centre.

Information is presented in five sections. The first reviews recent developments in rehabilitative care, concentrating on advances that have made virtually all cardiovascular patients candidates for rehabilitation. The concept of risk stratification as an organizational strategy is also presented and discussed. The second section provides highly detailed advice on the design and implementation of cardiac rehabilitation in developing countries. Citing non-equipment-based rehabilitation as the most practicable option for developing countries, the book

explains the components of rehabilitative care and exercise training according to diagnostic group, level of risk, and type of facility available. In view of the objectives of rehabilitation, readers are also given extensive advice on the assessment of patients for return to work, concentrating on the physical demands of activities commonly performed in developing countries.

The third section considers the special needs of children and young adults with cardiovascular disease, giving particular attention to the use of dynamic exercise testing to identify children or young adults who will benefit from exercise training. Readers are given advice on the clinical evaluation, recommended levels of physical activity, exercise testing, and exercise training for fourteen specific conditions.

The remaining sections provide guidelines for the rehabilitation of the severely disabled, medically complex cardiac patient, and discuss current and future approaches to education as a vital part of rehabilitative care. The book concludes with a series of 12 annexes, which present data useful in the design of an exercise programme and in the calculation of physical exertion and energy requirements for a range of exercises and daily activities.

Rehabilitation after Cardiovascular Diseases, with Special Emphasis on Developing Countries

Report of a WHO Expert Committee

Technical Report Series, No. 831

1993, viii + 122 pages (available in English; French and Spanish in preparation)

ISBN 92 4 120831 7

Sw.fr. 17.-/US \$15.30

In developing countries: Sw.fr. 11.90

Order no. 1100831



WORLD HEALTH ORGANIZATION PUBLICATIONS

Legislative Action to Combat the World Tobacco Epidemic

Second edition

by *R. Roemer*, with a chapter by *A. Daynard*

This book examines the ways in which legislation – whether involving comprehensive national laws or personal litigation against the tobacco industry – is being used to reduce tobacco use and promote the goal of a tobacco-free society. Drawing upon over 250 studies conducted throughout the world, the book concentrates on the many promising new legislative strategies that have developed within a climate of opinion that regards tobacco and sidestream smoke as toxic substances, gives priority to the non-smoker's rights, and rejects the industry's freedom to promote an addictive, lethal product. By describing and analysing recent legislation, the book also provides a heartening account of both the spread of legislation and the reasons for its increased strength and effectiveness.

The book has 15 main chapters. The opening chapters trace the history of knowledge about the health risks of tobacco and explain some of the issues surrounding the place of legislation in a policy for control. An overview of the different forms of government action is also provided.

The ten chapters which constitute the core of the book are organized to reflect two main categories of smoking control measures: those leading to changes in the production, manufacture, promotion, and sale of tobacco, and those designed to achieve changes in practice among smokers. On the production or "supply" side, five chapters describe measures involving the control of advertising and sales promotion, the use of health warnings and statements of tar and nicotine content, control of harmful substances in tobacco, restrictions on sales to adults, and economic strategies for decreasing tobacco production. Each chapter provides information on the reasons why legislation is needed, the types of laws that have been enacted in recent years, and the lessons that have been

learned. Readers are reminded that voluntary agreements with the industry do not work, that the traditional warning, "Smoking is hazardous to health", is obsolete and no longer effective, and that the best option is total prohibition of all advertising and promotion, including sponsorship of sports events and the arts.

Chapters concerned with controlling demand cover tax and price policies, legislation on smoke-free public places and public transport, legislation on smoke-free workplaces, strategies for preventing young people from smoking, and the use of legislation to mandate health education. Other chapters describe the major types of judicial action that have been used for tobacco control, discuss the special challenge faced in developing countries, and offer advice on how to develop and implement a policy on tobacco control. Six annexes, including an extensive country-by-country tabulation of anti-tobacco legislation, conclude the book.

Issued at a time when several national governments are making quantum leaps forward in the legislative attack on tobacco use, the book should prove especially useful as both a source of encouragement and a practical guide to action.

Legislative Action to Combat the World Tobacco Epidemic

Second edition

R. Roemer, with a chapter by *A. Daynard*

1993, xiii + 297 pages (available in English; French and Spanish in preparation)

ISBN 92 4 156157 2

Sw.fr. 59.-/US \$53.10

In developing countries: Sw.fr. 41.30

Order no. 1152202



WORLD HEALTH ORGANIZATION PUBLICATIONS

Laboratory Biosafety Manual

Second edition

This book provides a detailed practical guide to essential safety precautions and techniques that should be followed in all laboratories handling infective microorganisms. Recommended safety procedures and equipment are set out according to four levels of laboratory facilities dealing with increasingly hazardous pathogens, moving from basic laboratories handling routine samples of low-risk microorganisms (biosafety level 1), to maximum containment laboratories working with highly dangerous pathogens (bio-safety level 4).

Now in its second edition, the manual has been updated in line with new developments in equipment and improved knowledge of laboratory hazards and the best ways to prevent them. Details range from the simple advice that pipetting by mouth should be prohibited, through instructions for packing infectious substances for the post, to an explanation of the reasons why chemicals should not be stored in alphabetical order. Noting that safety equipment can generate a false sense of security, the book gives particular attention to the importance of alert and intelligent self-monitoring supported by appropriate supervision and surveillance.

The book has eighteen chapters presented in six main parts. Chapters in the first part set out fundamental rules governing safe laboratory design, equipment, and operation at each level of biosafety and in animal facilities. The second part, devoted to good microbiological practice, provides a detailed description of technical methods that

can avoid or minimize the most commonly reported laboratory accidents. Additional chapters offer advice on the safe shipment of specimens and infectious materials, on contingency plans and emergency procedures, and on methods of disinfection and sterilization.

Part three, on laboratory equipment, contains two chapters. The first describes equipment and operations that may create hazards and suggests how such hazards may be eliminated or reduced. The second discusses the special features of safety equipment designed to eliminate or reduce hazards.

Chapters in the fourth part alert readers to the dangers of fire, electrical apparatus, and hazardous chemicals. The concluding parts provide advice on safety organization and training, and set out a 129-point checklist for assessing laboratory biosafety, moving from fire prevention, through the health and safety of staff, to the storage of chemicals and radioactive substances. Examples of various national and international safety codes are presented in an annex.

Laboratory Biosafety Manual

Second edition

1993, xi + 133 pages (available in English; French and Spanish in preparation)

ISBN 92 4 154450 3

Sw.fr. 26.-/US \$23.40

In developing countries: Sw.fr. 18.20

Order no. 1152213



WORLD HEALTH ORGANIZATION PUBLICATIONS

Guidelines for Cholera Control

This book sets out the facts and advice needed to guide public health actions in response to an outbreak of cholera. Noting that the introduction of cholera into a country cannot be prevented, the book stresses the many things that can be done to prepare the health services, educate the general public, save the lives of patients, and prevent the further spread of an outbreak. The objective is to help managers of national diarrhoeal disease control programmes and non-governmental agencies to make the most effective decisions, whether concerning the selection of medical supplies or the emergency response to an epidemic.

The guidelines take their authority from three decades of intensive research and experience with the disease and the most effective measures for its management. Details range from instructions for making water safe by chlorination, through a list of the estimated minimum supplies needed to treat 100 patients during an outbreak, to the simple observation that breast-feeding protects infants and young children in endemic areas. Throughout, emphasis is placed on the importance of safe water, scrupulous personal hygiene, and careful food preparation as the most effective preventive measures. Readers are also alerted to public health interventions, such as vaccination, mass chemoprophylaxis, and *cordons sanitaires*, which are ineffective, wasteful, and therefore to be discouraged.

The opening chapters provide basic information about the disease, common sources of infection, and

measures for prevention, with emphasis placed on the paramount need for safe water supplies. Other chapters describe what national programmes should do to be prepared for an outbreak of cholera, outline the actions to take at the earliest stage of an outbreak, and provide guidelines for the management of patients, including advice on the use of oral rehydration therapy and antibiotics. The remaining chapters cover measures for preventing the spread of an outbreak, the epidemiological investigation of an outbreak, the role of the laboratory in diagnosis, and long-term preventive activities.

The second half of the book, which consists of five annexes, provides brief advice on the construction of a ventilated improved pit latrine, followed by a detailed step-by-step guide to the management of cholera patients, a selection of sample health education messages, and nine rules for safe food preparation to prevent cholera. The book concludes with guidelines describing a simple and rapid method for the isolation and identification of *Vibrio cholerae* O1 in diarrhoeal stools.

Guidelines for Cholera Control

1993, vi + 61 pages (available in English; French and Spanish in preparation)
ISBN 92 4 154449 X
Sw.fr. 15.-/US \$13.50
In developing countries: Sw.fr. 10.50
Order no. 1150398



WORLD HEALTH ORGANIZATION PUBLICATIONS

Parasitic Diseases in Water Resources Development

The Need for Intersectoral Negotiation

This book issues a call for action to correct the gross neglect of the health consequences of water impoundment and irrigation projects. Arguments and proposed lines of action respond to the documented magnitude of human misery and incapacity that follow when water development projects make no provision for disease control. Concentrating on parasitic diseases as the most dramatic and reliable indicators of adverse effects on health, the book aims to persuade the financiers, planners, and managers of these projects to make health concerns a central part of the development dialogue. To this end the book draws upon a large body of evidence to demonstrate both the magnitude of project-related health risks and the feasibility of their prevention and control. Citing the traditionally passive role of the health sector as a contributing factor, the book also aims to encourage health authorities to enter the project cycle with a more insistent voice. Throughout the book, emphasis is placed on recent knowledge about parasitic diseases that underscores the feasibility of formulating policies where the goal of economic progress is compatible with the protection and promotion of health.

The book has nine chapters. The first provides an overview of the problem, concentrating on the reasons why the health impact of development policies continues to be neglected despite overwhelming evidence of the consequences. The authors also explain why the time is now ripe to focus on the health as well as the ecological impact of these policies. The second chapter explains the many ways in which water development projects can exacerbate parasitic diseases, and discusses the significance of these changes within the broader context of development policies and their goals. Particular attention is given to the impact of new ecological conditions on the introduction, spread or aggravation of malaria, schistosomiasis, and lymphatic filariasis. The third chapter provides a detailed review of the evidence linking specific features of projects to changes in the incidence

and prevalence of these diseases. Drawing on data from studies of over 60 dams and irrigation schemes, the authors document case after case of health risks exacerbated by ecosystem changes. Although some well-planned projects are described, the overall picture is one of consistent neglect of both the short- and long-term hazards to health. The special case of small dams is covered in the fourth chapter.

Having documented the urgent need for change at the policy level, the second half of the book maps out lines of action. A review of technical measures for the control of malaria, schistosomiasis, and lymphatic filariasis demonstrates that parasitic diseases are an avoidable risk in water development schemes. Subsequent chapters explore the reasons, at the policy level, why these highly effective techniques have not been implemented, and describe different approaches for achieving policy adjustment. Proposals range from the use of a proportion of gross income from the project to support the costs of health maintenance, through the development of national regulations governing the long-term operation of a project, to the use of a "debt for health" exchange to secure financial support. The remaining chapters, addressed to health authorities, offer detailed practical advice on how to negotiate effectively with other sectors and how to prepare a feasible health plan for a water resources project. Information includes a series of six key arguments that can form the basis of a persuasive negotiating strategy.

Parasitic Diseases in Water Resources Development

The Need for Intersectoral Negotiation

J.M. Hunter, L. Rey, K.Y. Chu, E.O. Adekolu-John, and K.E. Mott
1993, x + 152 pages + 8 colour plates

(available in English; French in preparation)

ISBN 92 4 156155 6

Sw.fr. 35.-/US \$31.50

In developing countries: Sw.fr. 24.50

Order no. 1150396